

NTSB Order No. EA-4810

Adopted by the NATIONAL TRANSPORTATION SAFETY BOARD  
at its office in Washington, D.C.  
on the 16th day of December, 1999

Respondent.

6988A

with an engine overhaul.<sup>2</sup> We grant the appeal, in part.

Respondent, an employee of GALV-Aero Flight Center, certified and approved for return to service a Lycoming engine. The written engine log signed by him includes the statement "SB's [service bulletins] through today [August 19, 1996] have been checked and complied with." The engine was installed on a Cessna 172 aircraft, and the aircraft was flown. There is no dispute that the engine had corrosion pitting in the crankshaft, or that continued use of this crankshaft contravened a Lycoming service bulletin and the Lycoming engine overhaul manual.<sup>3</sup>

As part of an engine overhaul, the crankshaft had been sent by GALV-Aero to Aircraft Engine & Accessory ("AEA") for any necessary servicing. It was subsequently returned with a yellow tag.<sup>4</sup> Handwritten on that tag was the following: "See attached

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<sup>2</sup>Section 43.13(a), as pertinent, requires that maintenance be performed using the "methods, techniques, and practices prescribed in the current manufacturer's maintenance manual...." Section 43.13(b) requires, as pertinent, that maintenance be performed in a manner and with materials so that the work results in the equipment being in a condition at least equal to its original condition.

<sup>3</sup>Mandatory Service Bulletin 505A, *Inspection of Crankshaft ID for Corrosion*, provides that, if corrosion pitting is present, the crankshaft must be removed from service immediately, and is considered "unserviceable." The bulletin states that "Reports of crankshaft breakage originating from corrosion pits ... have been received." (This will cause the engine to fail in this single-engine aircraft.) The overhaul manual states that information in service bulletins is an integral part of, and is to be used in conjunction with, the manual, and shall be used by maintenance personnel when performing "actions specified in F.A.R. [Federal Aviation Regulations] 43.13."

<sup>4</sup>On the tag was the following preprinted message:

No other inspections or repairs were performed for this  
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copy of work order #84968 for details." The work order, which was not attached to the tag when it and the part were received by respondent, stated, at various places: "will not c/w [comply with] Lyc. S.B. 505A," and "crank does not comply per Lyc S.B. 505."

Respondent testified to his belief that a yellow tag meant that the item is serviceable and may be reinstalled.<sup>5</sup> Tr. at 80. He read the handwritten information on the tag, but believed there was no need to review the work order, and did not do so. Id. He further testified that, when he certified to all service bulletins having been complied with, he did so based solely on his belief that the yellow tag signified that AEA, in connection with its overhaul of the crankshaft, had accomplished the inspections and repairs necessary to enable it to determine that the part was serviceable.<sup>6</sup> (Tr. at 84).

Although he did not fully explain his dismissal, it appears that the law judge believed respondent reasonably relied on AEA, which had mis-tagged the crankshaft. We cannot agree. It is

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unit. Serviceability for a specific use must be determined by the installer of this unit. Details of our inspections and/or repairs are available under our Work Order.

<sup>5</sup>An FAA airworthiness inspector in his testimony acknowledged that a yellow tag has come to mean within the industry a serviceable part; a green tag a repairable part; and a red tag an unserviceable part. (Tr. at 34).

<sup>6</sup>Respondent was not aware of the requirements of Service Bulletin 505A and had not inspected the inside of the crankshaft. Id. at 91, 96.

respondent who approved the aircraft for return to service.<sup>7</sup> In doing so, he may not simply assume that others have done what needs to be done. Had respondent taken the time to look at the work order referenced by the yellow tag, even if it might have been inconvenient to locate it, he would have immediately seen that the yellow tag in this instance did not signify a useable part.

As a certificate holder, respondent has an independent obligation to abide by the regulations; neither reliance on his supervisor,<sup>8</sup> nor reliance on AEA, was reasonable in this case. See Administrator v. Fay & Takacs, NTSB Order EA-3501 (1992).<sup>9</sup> By failing to review the documentation referenced on the yellow tag, respondent, in violation of § 43.13(a), did not exercise the care expected of the holder of a mechanic certificate to ensure that all relevant requirements, specifically the Lycoming engine overhaul manual and service bulletin, had been met.<sup>10</sup>

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<sup>7</sup>GALV-Aero could not do so because it was not an FAA certified repair station.

<sup>8</sup>We reject any suggestion that the complaint should be dismissed because his signature reflected only his supervisor's instruction to sign.

<sup>9</sup>In this connection, the Administrator persuasively cites Administrator v. Spears, 2 NTSB 1658, 1659 (1975), where we said:

It is the very crux of aviation safety that one who certifies an aircraft as airworthy must be not only properly rated, but properly conscientious regarding his ratings. The degree of trust is very high, and any variance from that trust must be taken and considered very seriously.

<sup>10</sup>There is no debate on this record that his failure to  
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Notwithstanding our judgment that respondent's conduct fell short of regulatory expectation, we are persuaded that he should not be sanctioned because his lapse, albeit deserving of official censure, was largely the predictable outcome of the flawed performance of others involved in the maintenance of the aircraft whose errors, misjudgments or, possibly, misconduct may have obscured the necessity for a personal review of the records pertaining to critical maintenance performed by another repair facility. In this regard, we note, first, AEA's unexplained and confusing use of a tag whose color, notwithstanding any handwritten reference to other paperwork or pre-printed cautionary language on its face, has come to signify in the industry a serviceable part, when the work order sent with it clearly indicated the contrary. We also note that the individual who prepared the typed return to service certification in the aircraft logbook for respondent to sign, GALV-Aero's Director of Maintenance, appears to have believed that the crankshaft should be considered serviceable even though he knew, from prior discussion with AEA and, presumably, the work order itself that had been removed (perhaps by him) from the yellow tag, that the part did not meet the applicable standards of Service Bulletin 505A.

It would therefore appear that respondent's lack of care was

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ensure that the pitted crankshaft was replaced resulted in an unairworthy aircraft, in violation of § 43.13(b).

to some degree induced by factors a mechanic would ordinarily have no reason to question: the presence of a tag color-coded to denote serviceability for a part directed to him by his company for reinstallation and a detailed logbook certification prepared for his signature by a maintenance supervisor with knowledge of the work done by the mechanic and others. These circumstances combine to make respondent's violation at least understandable, in context, and persuade us that a sanction is not necessary to remedy a mistake that likely would not have occurred but for the incorrect tagging of the part and the deceitful return to service approval prepared for it.<sup>11</sup> A violation finding alone should be sufficient to demonstrate to respondent that even the reasonable assumptions these circumstances seemed to justify were no substitute for the proper charge of his obligation as a certificate holder to verify the accuracy of all representations about the aircraft to which his signature in its logbook would attest.

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<sup>11</sup>At the same time, a violation finding is warranted because of the serious threat to air safety that is posed whenever the last opportunity to insure that a repair has been accomplished properly is squandered.

**ACCORDINGLY, IT IS ORDERED THAT:**

1. The Administrator's appeal is granted, in part;
2. The initial decision is reversed to the extent it dismissed the violations charged in the complaint; and
3. The complaint is reversed to the extent it would impose a suspension of respondent's mechanic certificate.

HALL, Chairman, HAMMERSCHMIDT, GOGLIA, and BLACK, Members of the Board, concurred in the above opinion and order. FRANCIS, Vice Chairman, did not concur, and submitted the following dissenting statement:

I do not agree with the Board's decision not to impose a sanction in this case where we have found a clear regulatory violation resulting from a failure to act that could easily have been avoided. Despite an evolving maintenance environment that, in context, may explain the violation, the safety of the aviation system depends on each certificate holder's best efforts to comply with critical safety regulations and to adhere to a high standard of care in the workplace.